selected cryptographic algorithm and based on a shared secret known by the cellular terminal and a network operator of the cellular terminal;

producing a determination whether the attempt was successful and the cellular terminal supports the selected cryptographic algorithm in authenticating to the cellular network; and

in case the determination is positive, based on the decoded authentication request, the shared secret and the selected cryptographic algorithm, producing and encrypting an authentication response message and transmitting the authentication response message to the cellular network; and

in case the determination is not positive, producing and sending to the cellular network a failure report.

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